

Applicants: Ulrich Laemmli and Samuél Janssen
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In The Claims

Please cancel Claims 80 and 85 without prejudice or disclaimer of the subject matter contained therein.

Please amend the following Claims:

1. (Currently Amended) A DNA-binding molecule capable of sequence specific binding which binds specifically to a minor groove of double-stranded DNA, characterized in that it comprises comprising at least two sequence specific DNA-binding elements, covalently linked to each other in tandem orientation by an amphipathic, flexible linker molecule, wherein at least one of said DNA binding elements is being non-proteinaceous.
2. (Currently Amended) The DNA-binding molecule according to claim 1 wherein at least one of the DNA-binding elements comprises an oligomer comprising one or more organic heterocyclic amino-acid residues.
3. (Currently Amended) The DNA-binding molecule according to claim 2 wherein each organic heterocyclic residue has at least one annular nitrogen, sulphur or oxygen.
4. (Currently Amended) The DNA-binding molecule according to claim 2, wherein said heterocyclic residue is chosen from pyrrole, imidazolem triazolem pyrazole, furan, thiazolem thiophene, oxazolem pyridine, or and derivatives of any one of these compounds wherein one or more of the heteroatoms are having one or more substituted heteroatoms by a substituent which is DNA-binding or non-DNA binding.
5. (Currently Amended) The DNA-binding molecule according to claim 4, wherein at least one oligomer includes said

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heterocyclic residues are chosen from the group consisting of N-methylpyrrole (PY), and/or 3-hydroxy N-methylpyrrole (HP) and/or N-methylimidazole.

51. (Currently Amended) A process process for binding double-stranded DNA in a sequence-specific manner, comprising contacting a DNA-target sequence within said DNA with a DNA-binding molecule according to claim 1, in conditions allowing said binding to occur.
52. (Currently Amended) Process The process according to claim 51 which is carried out *in vivo*, *in vitro* or *ex vivo*.
53. (Currently Amended) Process The process according to claim 52 which is carried out in a cell.
54. (Currently Amended) Process The process according to claim 53, wherein said cell is eukaryotic.
55. (Currently Amended) Process The process according to claim 53, wherein said cell is prokaryotic.
56. (Currently Amended) Process The process according to claim 54, wherein said cell is a vertebrate cell, an invertebrate cell, a plant cell.
57. (Currently Amended) Process The process according to claim 54, wherein said cell is a mammalian cell, an insect cell, or a yeast cell.
69. (Currently Amended) A process process for modulating chromosome function in a eukaryotic cell, comprising the step of contacting a genomic DNA element comprising a binding site mediating chromosome function, with a molecule according claim 1 and having the capacity to bind which binds in a sequence-

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specific manner to said element, said step of contacting being carried out in conditions permitting binding of said compound molecule to said element, wherein the binding modulates chromosome function.

70. (Currently Amended) A process for modulating the function of a DNA element in a eukaryotic cell, comprising the step of contacting a genomic DNA element ~~so-called <>chromatin responsive element~~ (CRE), with a molecule according to claim 1 and ~~having the capacity to~~ which binds in a sequence-specific manner to said CRE, said step of contacting being carried out in conditions permitting chromatin remodeling of the CRE by said molecule compound, wherein said chromatin remodeling of the CRE alters the activity of one or more other modulated DNA elements, ~~so-called <>moduludulated DNA elements~~ in the genome.
71. (Currently Amended) A Cell cell containing a compound DNA-binding molecule according to any one of claims 1 to 50 5.
72. (Currently Amended) The Cell cell according to Claim 71, wherein said compound DNA-binding molecule binds the DNA-minor groove.
79. (Currently Amended) A Pharmaceutical pharmaceutical composition comprising a ~~compound~~ the DNA-binding molecule according to claim 1 in association with a physiologically acceptable excipient.
80. Cancelled
81. (Currently Amended) A DNA-binding molecule ~~Compound~~ according to claim 1 which is fluorescent or fluorescently labeled.

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82. (Currently Amended) The DNA-binding molecule compound according to Claim 81, wherein the fluorescent label is a fluorescent dye such as selected from the group consisting of fluorescein, dansyl, Texas red, isosulfan blue, ethyl red, malachite green, rhodamine and cyanine dyes.

85. Cancelled

Please add new claim 86 as follows:

86. (New) A method of treating genetic disorders, said method comprising administering to a subject in need of such treatment a pharmaceutically acceptable amount of the pharmaceutical composition of claim 79.